Tool and fixture for measuring mechanical and electromechanical properties for IC assemblies and features

ABSTRACT

[0001] Disclosed are the methods and tools to reliably and accurately predict and model the strength of the individual features and structures of semiconductor components. By modifying the traditional anvil/pyramidal indentors on a hardness tester, an improved method has been created to evaluate the mechanical forces on micron and submicron devices. This tool will provide a method to predict and analyze various mechanical, electrical and electromechanical states to help improve process yield, overall reliability, and design features. The modified tool will provide both a real-time process tool as well a development tool.